

Electrically and Thermally Conductive Nanocomposites Based on Eva Copolymer Filled With Expanded and Unexpanded Graphite

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Over the last years, the conducting polymer/graphite nanocomposites have attracted considerable interest because of their exceptional electrical, thermal and mechanical properties. Polymeric nanocomposites prepared from high aspect ratio layered graphite nanofillers achieve significant improvements in thermophysical and electrical properties at low filler concentrations, compared to conventional composites, without a significant increase in density. In this work, we present various aspects of electrical and thermophysical behavior of nanocomposites based on the ethylene-vinylacetate (EVA) matrix filled with nanostructuralized expanded graphite and standard, (nano)/micro-sized graphite.